Japanese Multinationals and Industrial Adjustment—— Multinationalization of Japanese Firms as Reorganization of Industrial Location.*

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The changes in environment especially after the oil crisis in 1973 have had a great impact on the world economy and some remarkable changes had occurred in the international trade and flow of capital with them. In particular, this paper takes note of some changes in the flow of overseas direct investment by Japanese firms, and thus attempts to find out the new trend among them, which is the international division of labour within a firm.

It seems that many of the overseas direct investment by Japanese firms have been developed by the industries with comparative disadvantage or getting in comparative disadvantage. Therefore, if this interpretation is correct, the multinationalization of Japanese firms forms one aspect of the adjustment of industrial structure in Japan.

1. lst Boom of Overseas Direct Investment by Japanese Firms

The boom of overseas direct investment by Japanese firms can be divided into two periods(1), i.e. lst boom centering on 1973 and 2nd boom between 1978 and 1979, as shown in Chart 1. This section takes the focus on the analysis of main characteristics of direct investment

※This paper was presented at the Second Japan-United States Business Conference held in Tokyo on 4 April 1983.

during lst boom period.

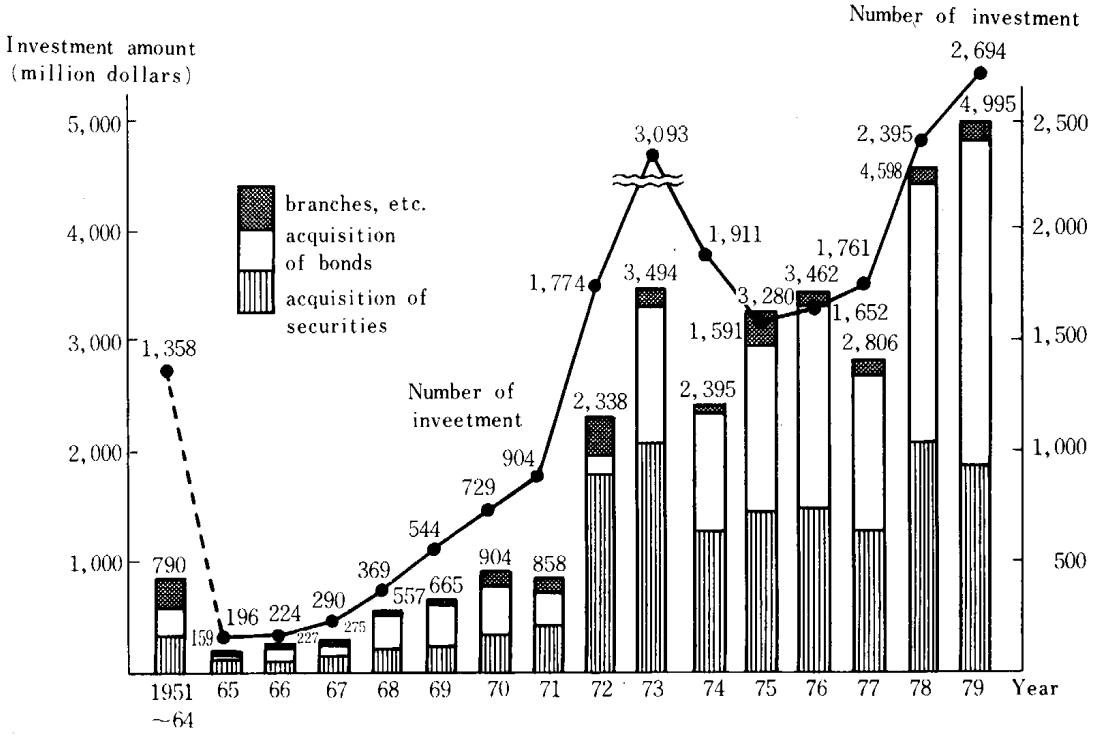
Professor Glickman of the University of Pennsylvania has pointed out that one of the main characteristics of overseas direct investment by the developed countries during this period is the increased share of the investment to the developing countries in the total investment, although the host countries had concentrated on OECD countries until before it.(2) And he continued to say that the motivation for this movement was to minimize the labour costs by locating the labour intensive stages of industrial production in the developing countries, and it was enabled by i) the standardization of production technology and ii) the development of communication system.(3)

This is also true of the overseas direct investment by Japanese firms. Originally the overseas direct investment by Japan had a bias toward the developing countries, compared with the trend of direct investment by American and European firms, as pointed out by Lawrence G. Franko.(4) Table 1 has suggested that the direct investment by Japan had increased substantially and the share of investment to developing countries in the total investment had also increased since 1970. And the investment by Japan during this period had concentrated on the labour intensive industries, such as textile and electronic industries in LDC's.

The reason why such a movement had occurred was to be found in the considerable increase in labour costs in Japan, as Professor Sueo Sekiguchi has suggested.(5) Japanese wage had increased in two ways for this period. First, Japanese wage rate converted into U.S. dollars had risen through the revaluation of Japanese yen in 1971. Secondly, Japanese wage itself had risen (by 16 percent annually for the period from 1965 to 1975). As the result of them, Japanese wage converted into U.S. dollars had risen by 28.6 percent in total for the period between 1970 and 1974.(6) Thus, the labour intensive industries in Japan were obliged to shift to industries with comparative disadvantage very rapidly.

Those circumstances were reflected in the pattern of direct investment by Japan to LDC's during this period, but at the same time

Chart 1 Overseas Direct Investment of Japanese Firms



Source: Industial Policy Dept., Ministry of International Trade and Industry, *Overseas Activities of Japanese Firms*, 1980 ed. (9th Inquiry), p. 2 (in Japanese)

Table 1 Overseas Direct Investment by Japanese Manufacturers (based on stock criterion)

(million US dollars, %)

Host Countries	end of 1965	1970	1974
Total	684(100.0)	963(100.0)	4137(100.0)
North America	87(12.7)	239(24.8)	692(16.7)
Latin America	195(28.5)	274(28.5)	1291(31.2)
South East Asia	178(26.0)	334(34.7)	1568(37.9)
Europe	10(1.5)	37(3.8)	214(5.2)
Middle East	198(28.9)	4(0.4)	106(2.6)
Africa	11(1.6)	25(2.6)	51(1.2)
Oceania	6(0.9)	50(5.2)	215(5.2)

Source: Sueo Sekiguchi, *The New Development of Overseas Investment by Japanese Companies*, 1979, p. 65 (in Japanese).

it can not be denied that the worsening economic environment in Japan since lst oil crisis in 1973 had also some influence on this movement.

Such a trend of Japan's overseas direct investment corresponds to the fundamental proposition raised by Professor Kiyoshi Kojima, which argues that Japan's overseas direct investment is characterized by the investment from the industries with comparative disadvantage or the industries losing comparative advantage.(7)

In the moment, we will trace the movement developed by American and European manufacturers of integrated circuits (IC's) during this period. With reference to their movement in West European market, Lawrence G. Franko has mentioned as follows:

'In the increasingly open, interdependent world economy, there were commercial penalties attached to failure to take advantage of the cost-minimization offered by offshore production in LDC's. In the case of one product produced by several continental enterprises, integrated circuits, those penalties were to be laid bare in a singularly dramatic way.'(8)

In the rapidly growing European market of IC's in 1969, there were 15 manufacturers of them. Soon Fairchild, Texas Instrument and other American firms started putting the standardized labour intensive stages of IC's production process into Hong Kong, Taiwan and Mexico, in order to curtail their production costs and therefore their selling prices. As such, due to the considerable decrease in IC's market prices, some European manufacturers who had no offshore production had to lose their market and suffer from the financial losses and those losses were nothing else than 'commercial penalties' to be imposed on the manufacturers having no production facilities in the low wage countries.(9)

On the other hand, the import of semiconductors such as IC's into Japanese market by U.S. manufacturers had increased rapidly for this period, because of the substantial decrease in their selling prices offered by production of U.S. manufacturers in LDC's. Having been confronted with those penetration by U.S. manufacturers into Japanese market, soon Japanese manufacturers had to embark on the reorganization of locating their labour intensive stages of production process in the

developing countries, particularly in South East Asia, in order to restore their competitive position in the world market. Considering such a multinationalization of Japanese manufacturers as the response to American manufacturers' attack, Professor Kojima's proposition, insisting that multinationalization of industries with comparative disadvantage is the main characteristic of Japanese firms and can not be found in American enterprises,[10] might have to be somewhat modified.

Nevertheless, the property of LDC production by Japanese textile industry is quite different from that of Japanese semiconductor industry in this respect. If LDC production by Japanese semiconductor was on the defensive, LDC production by Japanese textile industry would be positive and pioneering. For example, it is said that there was no textile industry in Thailand before Toyo Rayon and Teijin commenced their production there.[11] In particular, the location of production in South East Asian countries by Toyo Rayon is to be noted and it is argued that they are now forming one giant vertically integrated group there.[12]

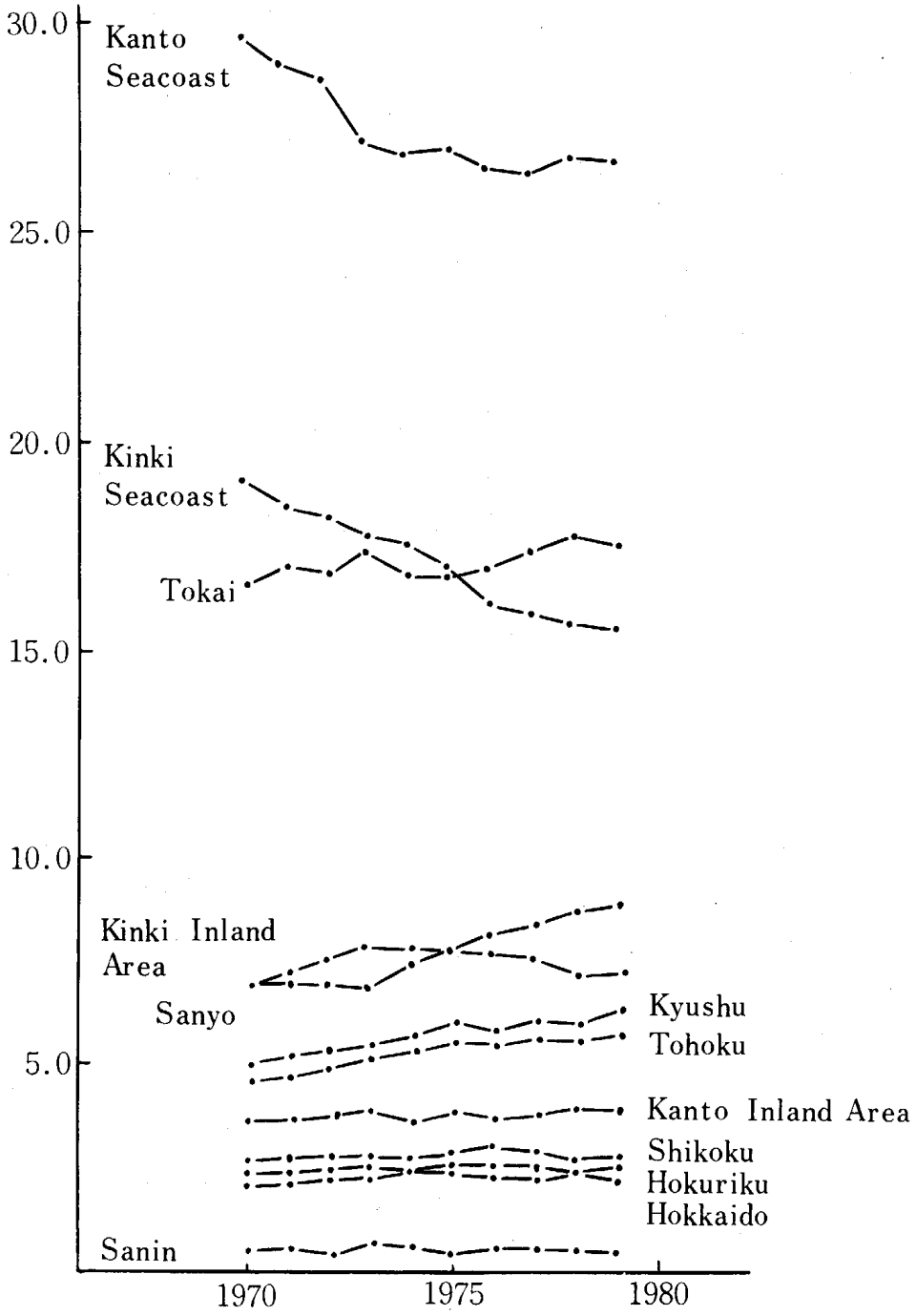
Apart from those movements by Japanese firms, other noticeable characteristics of Japanese multinationals are that they prefer joint venture operation, and many operations of those multinationals are by relatively small firms. But, those characteristics are found in European multinationals as well.

In connection with such a preference for joint venture operation, one can say that European and Japanese multinationals are latecomers to LDC production, relative to American firms, and thus their attempts to match American global or regional positions more quickly might have led them to accept joint venture positions.[13]

2. Reorganization of Domestic Location of Production Facilities

In the previous section, LDC production by Japanese firms in the early 1970's has been examined. For the almost same period, the reorganization of domestic location of production facilities had been developed by Japanese firms.

Chart 2 Changes in Regional Shares of Shipment (in 1975 price)



Source: MITI's data

After the early 1960's, when cheap oil from Middle East countries became available, Japanese resource policy seems to have shifted to importing natural resources for their industrial purposes from the development of domestic resources. Perhaps we can say that Japanese industrial location since then has been based on this Japanese resource policy, and thus Japanese industries have been concentrated in the Pacific Coast and the Inland Sea.

However, it seems that there had been slight changes in such a Japanese industrial location since the early 1970's, as shown in Chart 2. One of those changes was that the location of domestic factories tended to be decentralized. This change would have also occurred, due to the sudden and rapid increase in Japanese wage costs and other pressures on Japanese industries caused by the worsening economic climate there just after the oil crisis. As the result of such changes in economic circumstance, many Japanese firms had reorganized their domestic location of production facilities to strengthen their international competitiveness by seeking for much cheaper labour and other production factors in the domestic non-traditional areas. Charts 3 and 4 show the factor analysis of changes in shipment both in Kanto and Kinki seashore areas, in which the decline in shipment was the largest in Chart 2. Those charts suggest that the shipment of resource-processing industries, such as non-ferrous metals, oil and coal products, chemicals, iron and steel industries, had declined considerably.

Meanwhile, Table 2 shows the share of both energy cost and added value in domestic product for the main Japanese industries. It would not be accidental that the industries having high share of energy cost and low share of added value correspond to the resource-processing industries indicated above.

Those industries were hard hit by the striking increase in oil prices after the oil crisis and recent other resource problems. In Japan they are still in the category of structurally depressed industries, with only one exception of steel industry having large economies of scale (steel industry seems to have overcome their difficulties by the rationalization promoted by huge investment in their production

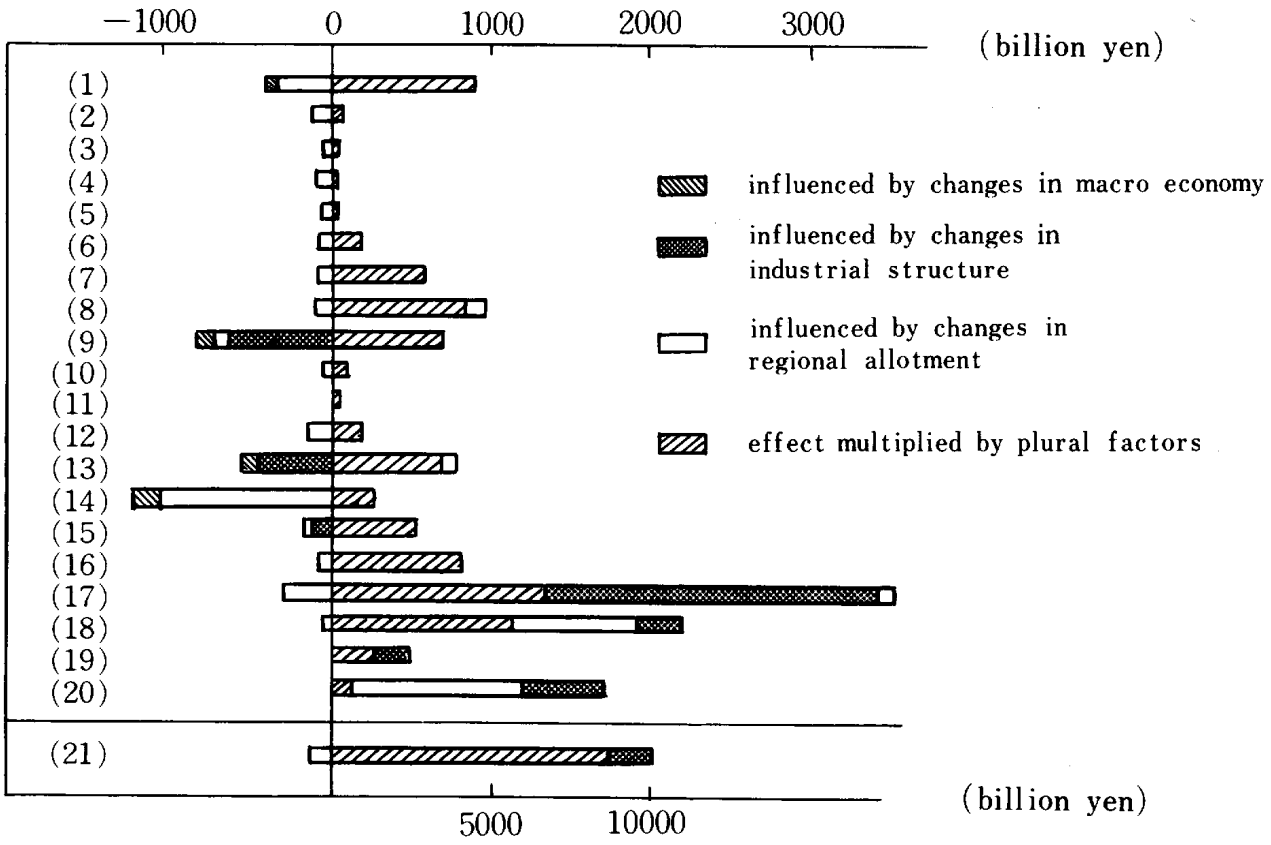
Table 2 Shares of Energy Cost and Added Value for Japanese Manufacturers

Industrial Sectors	Share of Energy Cost in Domestic Product (1973)	Share of Added Value in Domestic Product (1975)
Foodstuff	1.12	26.61
Textile	1.70	29.30
Clothes, other textile products	0.75	28.39
Timber and its products	1.18	25.94
Pulp, paper and paper products	3.77	26.95
Printing, publishing	0.70	47.36
Chemicals	4.22	21.94
Oil and coal products	3.76	17.57
Rubber products	1.80	39.11
Hide and its products	0.71	34.56
Nitrogen, earths	6.61	37.80
Steel	5.78	22.49
Non-ferrous metals	2.80	25.48
Metal products	1.25	47.31
Machineries & equipment	0.86	37.67
Electric apparatus	0.60	38.49
Transportation equipment	0.85	33.92
Precision machines	0.62	47.20
Other manufactures	1.32	39.86

Souce: Figures of energy cost have been obtained from Takeo Takahashi, 'Can high energy consuming industries be converted?,' *Shukan Tokyo Keizai No. 43*, 1978, p. 43 (in Japanese).
Figures of added value have been obtained from input-output table for Japanese industries.

Chart 3 Factor Analysis of Changes in Shipment by Industries in Kanto Seacoast Area (1974～1979)

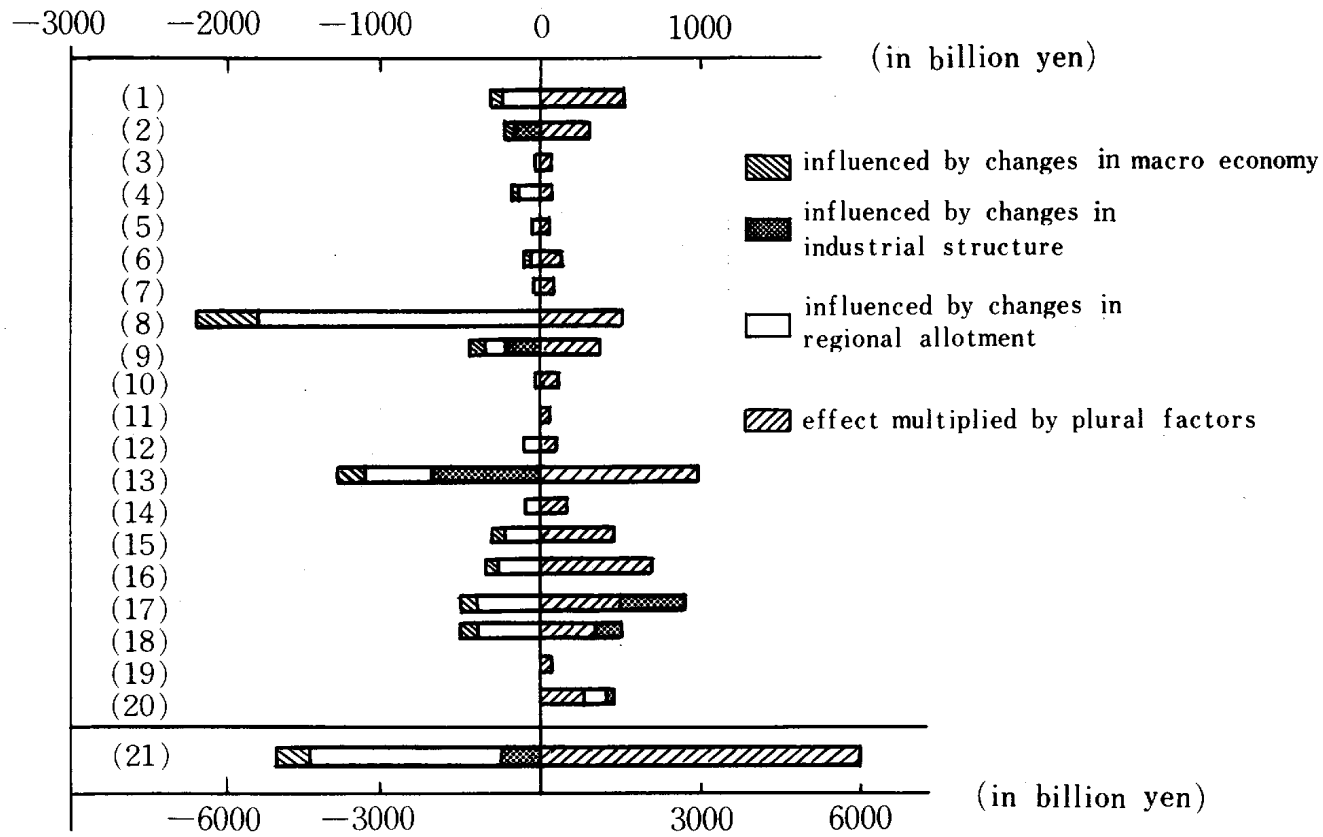
(1) Foodstuffs
(2) Textile
(3) Clothes, etc.
(4) Timber and its products
(5) Furnitures and fittings
(6) Pulp, paper and paper products
(7) Publishing, printing and the likes
(8) Chemicals
(9) Oil and coal products
(10) Rubber products
(11) Hides and their products
(12) Pottery, cements, etc.
(13) Iron and steel
(14) Non-ferrous metals
(15) Metal products
(16) General machinery
(17) Electric machinery
(18) Transportation equipment
(19) Precision apparatus
(20) Others
(21) All industries



Source: MITI's data

Chart 4 Factor Analysis of Changes in Shipment by Industries in Kinki Seacoast Area (1974～1979)

(1) Foodstuffs
(2) Textile
(3) Clothes, etc.
(4) Timber and its products
(5) Furnitures and fittings
(6) Pulp, paper and paper products
(7) Publishing, printing and the likes
(8) Chemicals
(9) Oil and coal products
(10) Rubber products
(11) Hides and their products
(12) Pottery, cements, etc.
(13) Iron and steel
(14) Non-ferrous metals
(15) Metal products
(16) General machinery
(17) Electric machinery
(18) Transportation equipment
(19) Precision apparatus
(20) Others
(21) All industries



Source: MITI's data

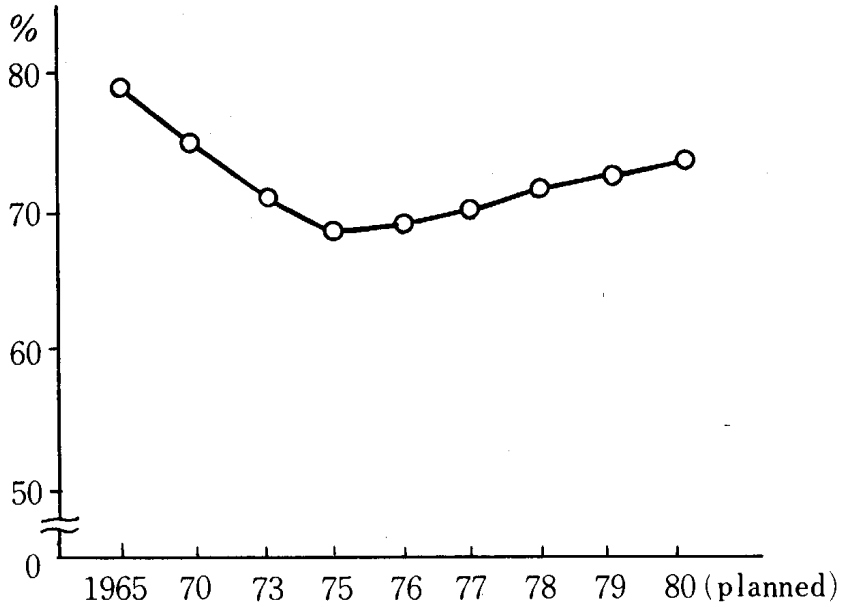
facilities and technological innovation). In other words, these industries had lost or were losing their comparative advantages, mainly because of substantial increase in oil prices, since they are as it were energy intensive industries. Thus, these industries had transferred their production facilities from the traditional industrial areas to the local under-developed areas in Japan, where the land costs are much cheaper and wage rates are relatively low, although such a reorganization had been encouraged by MITI as the governmental policy for avoiding the congestion in urban and industrial areas and for the development of under-developed areas.

But in any way, what I have discussed so far suggests the combination of regional capital mobility within a country and international capital mobility through the activities of multi-nationals.(14) This means that the industrial location would be determined by considering the differentials in factor costs among the areas, and the intra-firm international division of labour had just started in Japanese firms.

However, the net investment in one area may represent the disinvestment in another area especially under the present slowing down growth of economy. This means that the creation of job opportunities in the host country will be accompanied by the decrease of employment in the investing country.(15) Thus, the direct investment is likely to bring about the export of job opportunities. And it is in this sense that they say in Japan the overseas direct investment will bring about 'vacuumization of domestic industries', which will be discussed in detail later.

Apart from this employment problem, can we consider that such a trend of decentralization of domestic production facilities will continue in the future? Chart 5, which shows the changes of domestic investment in plant and equipment in the Pacific Belt Area, probably gives us an answer to this question. This chart indicates that the investment in plant and equipment in this traditional industrial area turned again to increase from 1977. This means that the domestic decentralization of production facilities had interrupted since this time.

Chart 5 Changes of Investment in Plant and Equipment in Traditional Industrial Areas (percentages)



Notes: This represents the share of investment in plant and equipment for the manufacturing in the Pacific Belt Area in the total of same category of investment.

Source: Council of Industrial Structure of MITI (ed), *The Prospect and Task for Industrial Structure in the 1980's*, 1980, p. 131 (in Japanese)

The reason for this interruption of decentralization seems to be that its actual effect of cost minimization was much smaller than originally expected. And thus, I presume that the overseas direct investment by Japanese resource-processing industries became active around 2nd boom of direct investment, because of this situation. In other words, the merits from the overseas direct investment would have been larger than those from the domestic reorganization of industrial location, as far as this matter is concerned. In the next section, 2nd boom of overseas direct investment will be discussed.

3. From Investment for Labour Intensive Industries to Investment for Resource-Processing Industries

The White paper of International Trade of 1981 by MITI has mentioned that the comparative merit of low prices and wages in the developing countries became smaller due to the recent increase in wages there, although previously the merit of low wages was the incentive for promoting the direct investment to those countries to a large extent. And this *White Paper* continues to say that the weight of merits of other production costs than wages is now increasing, and thus the industrial location in resource rich countries became much more attractive in terms of various social costs as well as electricity cost for the high energy consuming industries in the developed countries, such as aluminium industry.(16)

The recent situation in Japan is just as suggested in this *White Paper.* On the process from lst boom of overseas direct investment to its 2nd boom, the share of investment for labour intensive industries had gradually decreased, and instead of it, the share of investment for resource-processing industries had increased. The *White Paper* has indicated that the incentives for introducing labour intensive industries in the host countries had declined, but I consider that the industries with comparative disadvantage on the side of Japan had also shifted to resource-processing industries from labour intensive ones at the same time.

This tendency became quite evident from 1977 and reached its

peak in 1979. For example, in 1977 there was investment to petrochemical project in Iran, and in 1978 there were several large investment, including petrochemical project in Saudi Arabia and aluminium smelting project in Indonesia (Asahan Aluminium). And in 1979 there were quite large investment to Brasil, including Tubarao Steel Project (143 million dollars), Albras Aluminium Smelters Project (490 million dollars), and Celbras Timber-Pulp Project (830 million dollars), investment for aluminium smelters in Australia (Boyne Project) and so on. If the investment to resource-development projects themselves, such as oil development project in Mexico in 1979 (500 million dollars) is added to this list, we can say that Japanese 2nd boom of overseas direct investment had been led by the industries related to resources.

As the typical resource-processing industry with comparative disadvantage is aluminium smelting industry in Japan, we will now trace the process in which they had lost their comparative advantage.

Previously the world aluminium market was oligopolistic market led by Alcoa, Reynolds, Kaiser, Alcan, Pêchiney and Alusuiss, and producers' prices were predominant there. But, in 1978 aluminium ingot was listed on LME and the world prices of aluminium ingot began to follow LME prices, as the result that its oligopolistic market had collapsed. However, prior to it, the competition for expanding the production capacity became very fierce among those six oligopolistic groups and their production capacity had been expanded to a considerable extent. In 1973 their smelting capacity was 123.6 million tons and in 1977 it increased to 164.1 million tons[17] (had increased by 32 percent for 4 years).

On the other hand, the import of aluminium ingots into Japan was liberalized in 1961. But, its production costs then in Japan were higher, compared with those of North American and European manufacturers, and therefore the basic tariff rate of 10 percent was raised to the provisional tariff rate of 15 percent at the time of import liberalization.[18] Thus, the business results of Japanese aluminium smelters deteriorated very quickly, as the result that the electricity cost

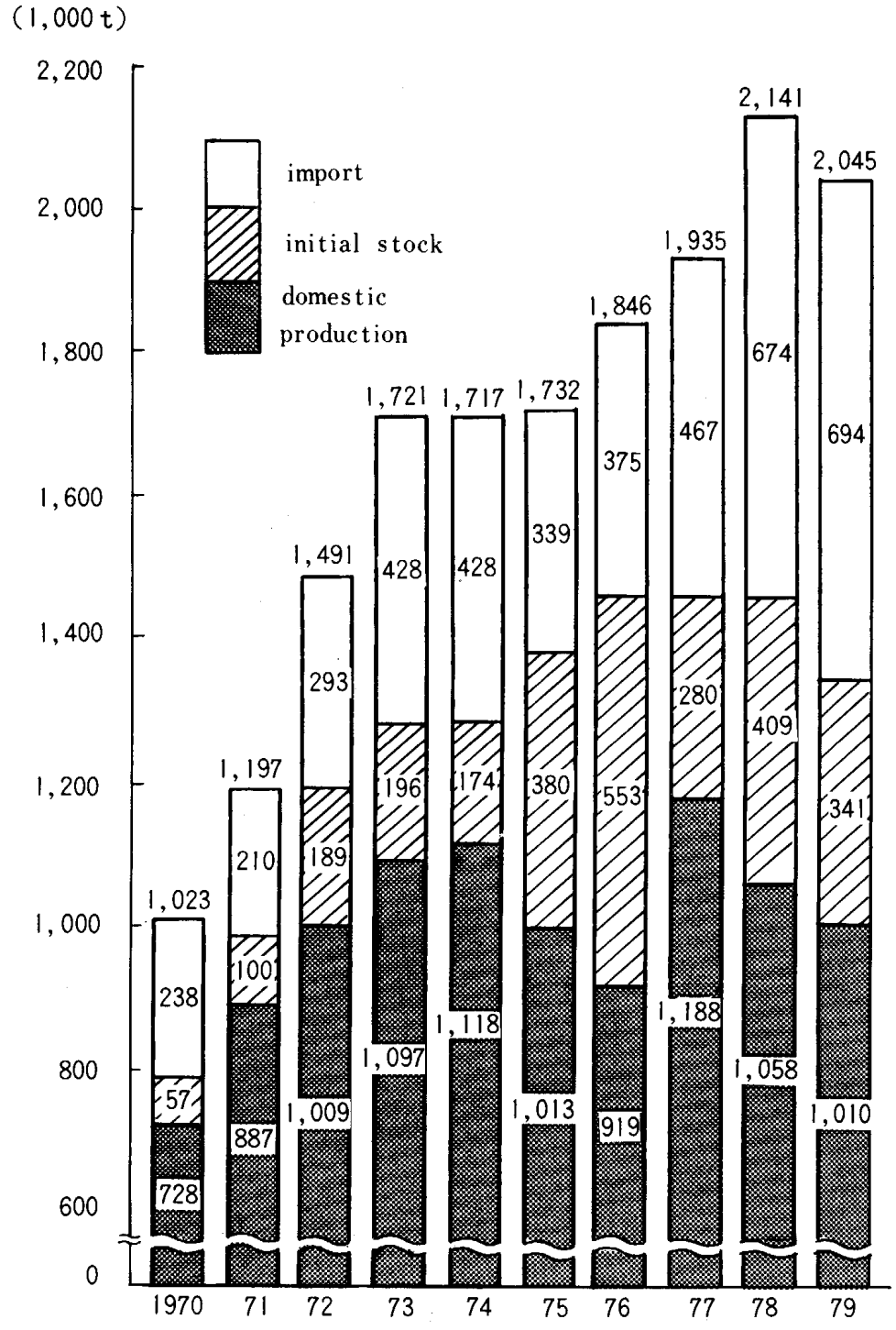
was increased so much by the substantial rise in oil prices (aluminium smelters are the industry which consumes 15.000 kilowatt-hour for the production of one ton of aluminium ingot).

Chart 6 shows the changes in domestic production, stock and import of aluminium ingot in Japan. This chart indicates that the domestic production had declined from 1977, due to the coutinued increase of stock caused by the import pressure. Also the 1981 import of aluminium ingot increased by 25.8 percent and 22.2 percent respectively in amount and in quantity to the figures of previous year, and those increases reflected the differentials between the world market prices and domestic manufacturers' prices, in the face of the declining demand during the depression.[19] Of course, those figures of import include the import of aluminium ingots produced in the overseas subsidiaries of Japanese firms.

Unless there takes place any dramatic change in smelting technology, Japanese aluminium smelters can not have comparative advantage, and thus only one way for them to survive would be the overseas production (=overseas location). And in fact they have already started overseas smelting in several countries. Following are the main projects of overseas smelting by Japanese firms.

In Canada Alpac Aluminium Ltd. which is a joint venture by Alcan and Nihon Keikinzoku, started smelting in 1976. And in New zealand NZAS (New Zealand Aluminium Smelters Ltd.) started production in 1971 and have produced 150,000 tons of aluminium ingot annually. This project is a joint venture between COMALCO, a subsidiary of Kaiser Aluminium and two Japanese firms, and located in Invercagill which is a small town of southern extremity of this country. In this case, bauxite is supplied from Australia and NZAS produces aluminium ingot by using cheaper electricity there. New Zealand government had introduced the World Bank loan to construct infrastructure including Manapouri Power Station and it should not be forgotten that the countries concerned had cooperated with them for the completion of this project. Another big project is Asahan Project in Indonesia which produces 225,000 tons of aluminium ingot annually.

Chart 6 Changes in Supply of Aluminium Ingot



Source: Resource Reserch Institute of Department of Science and Technology (ed.), *Illustrations of Natural Resources of Japan* (revised edition), 1982, p. 188 (in Japanese).

And there are many other projects in Venezuela, Brasil, Australia, etc.

Bauxite mining itself accounts for only 10 percent of total aluminium cost. But alumina and aluminium smelting accounts for over 85 percent of it, although electricity supply is the non-traded goods. Therefore, host country can derive much benefit from smelting.

4. Prospect for Other Resource-Processing Industries

In Japan it is pulp-paper industry that the overseas production is very active next to aluminium industry. Japan's degree of dependence on import for timber is extremely high, as domestic timber resources are now very scarce. However, on the other hand, many timber exporting countries are prohibiting the export of logs and its main purpose is to promote the development of domestic processing industries and therefore to raise the employment and income levels there by raising the degree of local processing. Because of such changes in resource conditions, Japanese pulp-paper industry was obliged to import their industrial inputs in the form of intermediate products.

As the overseas production in this field, first of all, we can pick up Carter-Oji project in New Zealand, which started production of RGP pulp and timber in 1971. As other main projects, there are several joint ventures with local firms in Canada, Brasil, etc.

In greater or less degree, many of other resource-processing industries in Japan have some possibility of losing their comparative advantage. To take an instance of oil industries, this anxiety becomes indelible. The enhancement of nationalism in OPEC's is reflected in their industrialization policy. And in many cases, this policy has been embodied in various projects for the development of oil-processing industries (more concretely in the projects for the development of local refining and petrochemical industries).

OPECs' share of oil refining capacity in the free world was only 9.2 percent in 1980,[20] but OPEC's have been committing their refining to oil refineries in non-oil producing countries. Therefore, there is possibility that oil will be imported into Japan almost all in the refined form in the very near future.

Actually, the import of oil products into Japan from non-oil producing countries is increasing quickly. For example, 1981 import of oil products into Japan from Singapore increased by 36.3 percent in amount to that of previous year (1,403.305 thousand dollars). Also 1981 import of oil products from Korea increased by 12.4 times as large as that of previous year, although the absolute amount is small (92,884 thousand dollars).[21]

Moreover, the import of oil products from oil producing countries is increasing as well. In particular, the import of oil products from Saudi Arabia, which has the largest refining capacity in OPEC's, is increasing to a large extent, and its import of 1981 increased by 47. 6 percent in amount to that of previous year (832,228 thousand dollars).[22] Judging from the above situation, it appears that the prospect for Japanese oil refining industry is rather gloomy. With reference to Japanese petrochemical industry, this industry is now in the category of structurally depressed industry. The reason why this industry is losing their comparative advantage is that they are purchasing naphtha of very high cost for their industrial inputs from domestic oil refineries and thus their costs of final products become uncompetitive. The import of naphtha into Japan was subject to import quota until most recently. But, presently Japanese petrochemical industry is trying to import much cheaper naphtha from overseas suppliers on the one hand, and they have already established overseas production base in Singapore on the other hand. This project is a joint venture between Singapore government and 27 Japanese firms and will commence the operation very soon.

In the meantime, one of the main purposes of trade policy means, particularly tariff escalation is to prevent domestic industry from losing comparative advantage and ultimately to protect them against fierce competition from overseas suppliers. Needless to say, this kind of the policy means contradict the liberalization of international trade. Thus, with the development of international trade,*raison d'être* of tariff escalation has become weaker and weaker. In Japan, trariff escalation is now not strong enough to prevent domestic industries from losing

comparative advantage, as far as manufactured products and industrial inputs are concerned. Therefore, to say repeatedly, the only one way for those Japanese industries losing their comparative advantage to survive would be the overseas production, although it brings about another problem of vacuumization of domestic industries. Conversely, the elimination of trade barriers, particularly the liberalization of Japanese market for the products from the developing countries will promote the multinationalization of Japanese firms.

5. Implication and Problem of Multinationalization of Japanese Firms as Industrial Adjustment

In the above sections, I have discussed the process in multinationalization of Japanese industries with comparative disadvantage or getting in comparative disadvantage. During lst boom of Japan's overseas direct investment, labour intensive industries embarked on the overseas production, but 2nd boom of direct investment was led by Japanese resource-processing industries with comparative disadvantage, the typical case of which was the overseas location by Japanese aluminium smelting industry. And all those movements by Japanese firms were the result that they had endeavoured to cope with the changes in economic environment and to prevent them from declining into industry with comparative disadvantage.

This paper has reached such a conclusion, as its discussion concentrates on the relation between comparative disadvantage and overseas direct investment by Japanese firms. However, of course, there are other types of Japanese multinationals, such as import substituting type, etc. Therefore, whether Professor Kojima's hypothesis mentioned above can be applied to the explanation of actual phenomena or not remains to be seen. But, in the case of Japanese multinationals the tendency that the industries with comparative disadvantage becomes multinationalized seems to be very strong and will be much stronger in the future, with the growth of Japan's overseas direct investment.

And this type of multinationalization means the intra-firm

international division of labour. As the result that Japanese industries had been confronted with some difficulties in production costs which were unable to be overcome by the division of labour within a factory or among factories, there emerged this form of international division of labour. One of its merits on the side of investing country would be in the formation of the most efficient global division of labour, in which products most suitable for export and products most suitable for overseas procurement can be selected and thereby the minimization of production costs can be performed[23]. Moreover, the adjustment of industrial structure will be promoted more quickly and more smoothly by this form of international division of labour than otherwise, as this type of multinationalization itself forms one aspect of industrial adjustment.

And if this form of division of labour is developed by a big business on a very large scale, it will be an international division of labour within a vertically integrated corporation or group.

In his paper of 1973 Professor G.K. Helleiner has depicted 'labour intensive processes and component specialization within vertically integrated international industries' as a new path which emerged in the second half of 1960's.[24] Thus, with reference to the future of exports in vertically integrated industry, he has stated as follows:

' Large multi-national firms will move increasingly into the internationalisation of their production and marketing, knitting the less-developed countries into their international activities as suppliers not merely of raw materials but also of particular manufactured products and processes. If one likes historical approaches, one can depict this development as the next logical step for international investors following the two previous major stages of resource exploitation and manufacturing. Manufacturing for export is the "New frontier" for international business in the less-developed world, and process and component specialisation is likely to become the chief, or at any rate the easiest, avenue for less-developed countries seeking to expand their manufactured exports.'[25]

This Helleiner's explanation seems to be very similar to what I have discussed so far, with an exception that he has insisted only one aspect of *'labour intensive* processes and component specialisation'.

Perhaps this point reflects the background of economy then characterized by the increasing labour costs in the early 1970's when his paper was written. And we must keep in mind that this period corresponds to the period when there emerged the labour intensive LDC production, which was mentioned earlier in this paper. Accordingly, it would not be surprising that Professor Helleiner has insisted such an aspect only. However, the resource problems represented by oil problem have had strong impact on the production costs since 1st oil crisis in 1973, and thus there developed another type of overseas production mainly in the resource rich countries especially by Japanese firms, as mentioned above.

On the other hand, the merits of this form of overseas production on the side of host country are that the employment and income levels there will be raised by the expansion of local industrial production and at the same time it will satisfy the requirement by host country for raising the degree of local processing, and ultimately contribute to their economic development. Therefore, this form of overseas production will satisfy the requirements of both investing country and host country.

However, one of the most important problems involved in this form of overseas direct investment would be the employment problem in the investing country which has been described above as the vacuumization of domestic industries. Following is the very brief outline of a case study of the overseas production developed by a Japanese electronic component manufacturer,[26] which suggests us very rough size of the decreased employment brought about by it.

Tokoh Group is one of the leading electronic component manufacturers in Japan. This group is comprised of a parent company and its subsidiaries which are in effect branch factories. By the middle of 1960's they had produced various electronic components mainly in their domestic subsidiaries. But, in the 2nd half of 1960's their business performance deteriorated very quickly, due to the increased production costs and the intensified competition from other component manufacturers. As the result of them, they were obliged to reduce their domestic production activities and to locate their production facilities

in the developing countries.

For the period of 3 years from 1971 to 1973, they had established total 10 overseas subsidiaries, of which 8 subsidiaries were their overseas production bases and two were parts of their sales network, and had been able to improve their business performance. However, by this reorganization of their industrial location in overseas countries, between 1971 and 1974 the employment of parent company had decreased to 1,333 from 1,877 (decreased by approximately 30 percent), in spite of the fact that their annual proceeds and capital had increased to 25,274 million yen and 1,730 million yen from 11,738 million yen and 1,053 million yen respectively (increased by about 2.1 times and 1.6 times as large as the previous figures). Those figures indicate that the employment decreased to a considerable extent, while the size of business activities was tremendously expanded.

Another well known example of such a vacuumization of domestic industries is the disinvestment in the city of Niihama. Previously this city was known as the Sumitomo's city, as it was occupied by various industries of Sumitomo Group, and there were several heavy industries including petrochemical industry, aluminium smelting industry, etc. in this city. However, as those industries lost their comparative advantage and located their production facilities in several overseas countries, the economic activities of this city were almost paralyzed and there occurred the large reduction of employment and the outflow of labour forces, which were ultimately absorbed by other industries such as automobile industry.

In any way, those examples suggest that the overseas direct investment may lead to the vacuumization of domestic industries and the unemployment problem in the investing country especially under the present low growth of the world economy, if it is done on a very large scale. And, perhaps these problems can be solved by having some measures for income redistribution, which will bring about other serious problems including taxation problem.

Notes :

(1) Mitsuo Honda,'Japan's Overseas Direct Investment and Multinational Firms', Business Economic Research Institute of Nihon University, *Sangyo Keiei,* No.2 in 1981, p.81 (In Japanese)

(2) N. Glickman, *The Changing International Economic Order and Urban and Regional Development in OECD Member Countries,* OECD Room Document No.3 (Restricted), April 1981, pp.21-26.

(3) *Ibid.,* p.26.

(4) Lawrence G.Franko, *The European Multinationals ; A Renewed Challenge to American and British Big Business,*Harper and Row, London, 1976, p.113. There he has mentioned as follows.

'The extreme case is that of large Japanese enterprises. A majority of Japanese foreign manufacturing took place in LDC's in all industries in which Japanese enterprises were active abroad. More than 90% of all foreign manufacturing subsidiaries of 67 largest Japanese firms were located in the less developed world'.

(5) Sueo Sekiguchi, *The New Development of Overseas Investment,* Nihon Keizai Shimbunsha, 1979, p.72 (in Japanese).

(6) *Ibid.,* p.66.

(7) Kiyoshi Kojima, *Direct Investment by Multinationals,* Diamondsha, 1981, pp.391-392 (in Japanese).

(8) Franko, *op. cit.,* p.131.

(9) Franko, *op. cit.,* pp.131-32.

(10) Kojima, *op. cit.,* pp.12-13.

(11) Tran Van Tho, 'Japan's Direct Investment to ASEAN Countries', Sueo Sekiguchi and Japan Economic Research Center (ed.), *Pacific Links and Japan's Direct Investment,* Nihon Keizai Shimbunsha, 1982, p.37 (in Japanese).

(12) *Ibid.,* p.37.

(13) Franko, *op. cit.,* p.122.

(14) Glickman, *op. cit.,* p.38.

(15) Glickman, *op. cit.,* p.44.

(16) Ministry of International Trade and Industry, *White Paper of International Trade of 1981,* p.332 (in Japanese).

(17) Sueo Sekiguchi, 'Industrial Adjustment of Resource-Processing Industry', in Sueo Sekiguchi (ed.), *Japan's Industrial Adjustment,* Nihon Keizai Shimbunsha, 1981, p.203 (in Japanese).

(18) *Ibid.,* pp.202-03.

(19) Ministry of International Trade and Industry, *White Paper of International Trade of 1982; Details,* p.225 (in Japanese).

(20) Shigeki Koyama, *Economic Situation in Middle East; Tracing Oil Power,* Yuhikaku, 1981, p.110 (in Japanese).

(21) Those figures have been obtained from Ministry of International Trade and Industry, *White Paper of 1982; Details,* p.222.

(22) *Ibid.* pp.222-223

(23) Akira Ueno, *New Assertion of Creating a Country by Overseas Investment; Searching for Solutions for Success,* Toyo Keizai Shimposha, 1980, p.16 (in Japanese).

(24) G.K. Helleiner, 'Manufactured Exports from Less-Developed Countries and Multinational Firms', *Economic Journal,* March 1973, p.28.

(25) *Ibid.,* p.31.

(26) Hikaru Sato, 'Case Studies of Overseas Activities of Japanese Electronic Industry; Tokoh Group and Murata Manufacturing Company', in Yoshikazu Miyazaki (ed.), *Studies of Multinational Firms,* Chikuma Shobo, 1982, especially pp.122-23 (in Japanese).